both Type 1 and Type 2 mechanisms, the photoreaction proceeds via the lowest triplet state of the sensitizer. Hence, a relatively long triplet lifetime is required for effective phototherapy. In contrast, a relatively short triplet lifetime is required for diagnostic imaging to avoid photodamage to the tissue caused by photosensitizers.

Amend the paragraph beginning at page 6, line ~~28~~ 15, as follows:

Thus, there is a need to develop effective phototherapeutic agents that operate via the Type 1 mechanism. Phototherapeutic efficacy can be further enhanced if the excited state photosensitizers can generate reactive intermediates such as free radicals, nitrenes, carbenes, and the like, which have much longer lifetimes than the excited chromophore and have been shown to cause considerable cell injury. Thus, there is a need in the art to develop effective phototherapeutic agents. Phototherapeutic efficacy can be substantially improved if both Type 1 and Type 2 units are integrated into a single compound. This can be accomplished using three types of formulations: (a) homogeneous mixtures of Type 1 or Type 2 agents alone, (b) heterogeneous mixtures of Type 1 and Type 2 agents, or (c) a single molecular entity containing both Type 1 and Type 2 functionalities.

IN THE CLAIMS

Amend claims 1, 2, 12, and 14 as follows:

1. (AMENDED) A composition comprising a pharmaceutically acceptable carrier and sulfenates having the formula

IN THE SPECIFICATION

Amend the Title as follows:

CYANINE-SULFENATES FOR DUAL PHOTOTHERAPY

CROSS-REFERENCE TO RELATED APPLICATIONS

The Cross-Reference to Related Applications has been amended as follows:

This application is a continuation-in-part of U.S. Patent No. 6,395,257, A1 having the same inventors and assignee as the present invention, said application incorporated herein by reference in its entirety.

12/27/07

Amend the paragraph beginning at page 2, line ~~10~~ 7, as follows:

Phototherapy has been in existence for many centuries and has been used to treat various skin surface ailments. As early as 1400 B.C. in India, plant extracts (psoralens), in combination with sunlight, were used to treat vitiligo. In 1903, A2 Von Tappeiner and Jesionek used eosin as a photosensitizer for treating skin cancer, lupus of the skin, and condylomata of female genitalia. Over the years, the combination of psoralens and ultraviolet A (low-energy) radiation has been used to treat a wide variety of dermatological diseases and manifestations including psoriasis, parapsoriasis, cutaneous T-cell lymphoma, eczema, vitiligo, areata, and neonatal bilirubinemia. Although the potential of cancer phototherapy has been recognized since the early 1900's, systematic studies to demonstrate safety and efficacy began only in